

THE FARMER & GARDENER;

AND LIVE-STOCK BREEDER & MANAGER.

CONDUCTED BY I. IRVINE HITCHCOCK, AND ISSUED EVERY TUESDAY FROM THE AMERICAN FARMER ESTABLISHMENT, AT \$5 PER ANNUM, IN ADVANCE.

No. 19.

BALTIMORE, SEPTEMBER 9, 1834.

Vol. I.

THIS publication is the successor of the late **AMERICAN FARMER**,

(which is discontinued,) and is published at the same office, at five dollars per year, payable in advance.

When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

American Farmer Establishment.

BALTIMORE: TUESDAY, SEPTEMBER 9, 1834.

NOTICE TO CORRESPONDENTS.—Will. Shakspeare has been received. The facts he relates, as well as the theory he deduces from them, are interesting. It is the most plausible, if not the only theory, we have seen offered, to account for a fact in vegetable economy, which has excited a good deal of attention. It shall appear in due season.

We have received two letters from a valued correspondent in Montgomery county, relating some interesting improvements in his soil, by turning under the old sage, and other modes worthy of imitation. They shall appear soon.

A correspondent from south Alabama, writes us that the crops of corn and cotton, of this season, has not been equalled in the memory of the oldest inhabitants. The country is unusually healthy for the season of the year.

CORNSTALK FODDER.—The subject of cornstalk fodder must this year be one of great interest to the farmer. In our last paper we gave the account of an experiment, instituted for the purpose of testing the effects of cutting off the top of the stalk before the grain had arrived at a state of maturity; and the result proved that an entire loss of twenty per cent. was sustained in consequence of the practice. We accompanied this calculation with some observations, tending to show from reasoning on the physiological and known laws of vegetation, that this calculation was correct. Had the stalks at the same time been taken off at the ground, instead of being cut above the ear, we have no doubt but the loss in the crop would have been less. We know that buckwheat, when cut, has many grains which are but barely formed; yet the sap contained in the stalk proceeds on its course, and nourishes the grain; and we find that the young grains are brought to perfection, after being cut. The same thing would take place in

corn if cut at the root, instead of being taken off above the ear.

Any one may satisfy himself, merely by his own taste, that the portion of stalk below the ear contains much more saccharine matter than the upper part, which is saved by topping; and this fact is corroborated by the experience of the writer of this article. He kept three horses and twelve cows in this way. The 12 milch cows were kept in stalls—18 bushels of the stalks, cut in a horse power cutting-box, were every morning put into a trunk having a false bottom, 6 inches from the true bottom—half a bushel of indian meal was mixed as equally as possible through the stalks. The 6 inch space between the true bottom of the trunk, which was perforated with holes to admit the steam through, was divided into two apartments, by a transverse partition; and contained a small portion of water. Into the upper apartment, for one end was a little elevated, was put 4 qts. of flaxseed, every morning; and into this water was admitted steam from a steam engine. The stalks, meal and flaxseed were all cooked in this way, in about one hour and a half after the steam had commenced passing over. The water in which the flaxseed was steeped, was formed into a jelly, was drawn off and poured over the stalks before feeding away to the cattle. The second morning the portion of seed that had been steeped the day before was drawn down to the lower apartment, and replaced with 4 qts. more of seed, and the first portion of seed after the second steeping, was taken with the jelly, and poured over the stalks to be given to the cows. We have before shown the tendency of steaming food, to convert the mucilage, starch, and gummy matter into sugar.

Thus each cow had daily of meal 1 qt. 1½ gill; of flaxseed 1½ gill; of stalks one bushel and a half. With this feed the cows were kept in a full flow of milk; and when dry, they were in good condition for the butcher.

The cream from their milk made as good and as yellow butter as was made in the summer from white clover and orchard grass pasture.

DR. DUCATEL'S SURVEY OF THE UPPER COUNTIES.

We understand that Professor Ducatel is now going to direct his course to the western counties of the state. There is no doubt but his discoveries

in that direction will be equally interesting to the farmer with those already accomplished.

Marl of a different character may be expected to be found as we approach the limestone region. Those on the tide waters derive their calcareous ingredients from the shells lying on the borders of streams, or where the water has covered the earth; but, as we approach the limestone region, the calcareous matter is formed into marl—this is of various degrees of hardness, according to the different quantities of clay or selceous sand that enters its composition. This kind of marl is known by a greater or less crumbling when exposed to the atmosphere.

There are other points in which the farmers may advantageously avail themselves of the advice of Dr. D. as he progresses through their part of the country—There are many fields to be seen in Frederick and Washington counties, that will yield 12 or 15 bushels of wheat to the acre; but, when left to the natural grasses, will yield little besides sorrel—We have seen whole acres with hardly grass enough to pasture a rabbit; so entirely had the sorrel taken possession of the ground. This was owing to a free acid abounding in the soil, and probably that acid was the carbonic. If this were the case, hydrate of lime would be the proper remedy. We advise all who have land of this description to avail themselves of the Dr.'s advice; his retort will soon detect the abounding evil, and indicate the remedy.

MARYLAND HORTICULTURAL SOCIETY,
September 6, 1834.

Mr. John Feast presented some fine bunches of a grape, produced from the seed of the Isabella. Doctor Chavalier presented one bunch of fine grapes, which he calls the Assyrian.

Mr. Robert Sinclair, Sen., presented a boquette, consisting of the grand purple, orange and yellow, La Brilliant, and royal lilac dahlias; cluster tea rose, common tea, Florence tea and daily roses; and a variety of fine double Altheas.

Mr. Edward Kurtz presented *Lobelia speciosa*, and *Amaryllus purpurea vallata*, a fine plant in bloom.

Mr. Samuel Feast presented four seedling roses, *Hybiscus splendens*, *sinensis*, variegata, two varieties of Dahlias, *Pavonia promosa*, &c.

Mr. John Feast exhibited *Euphorbia variegata*, *Rosa Websteria*, *polyantha Uvidalia*, *virex agnus castus*, Pink noisett, and white musk roses; *Eugenia myrtifolia*; *Plumbago capensis*, *Lobelia fulgens*; *Helianthus*; *Eupatorium celestinum*, *Hamiltonia roose*; *Lantana camosa*, &c.

THE FARMER.

AGRICULTURAL CHEMISTRY—No. 5.

CARBON.—We have treated in a concise manner of oxygen and hydrogen gases, and shown their important offices in vegetation; it now remains for us to examine carbonic acid gas. Those two, with carbonic acid gas, we have shown are the principal constituents of all vegetable matter. Nitrogen gas enters into the composition of a few vegetable substances; but its offices are but little understood, and it is believed they are limited to but a few. It enters more copiously into the composition of animal substances. Charcoal, technically called carbon, when combined with oxygen, forms carbonic acid gas.

If 13 gr. of well burnt charcoal be inflamed by a burning-glass, in 100 cubic inches of oxygen gas, the charcoal will entirely disappear; and provided the experiment be correctly made, all the oxygen, except a few cubic inches, will be converted into carbonic acid; and what is remarkable, the volume of the gas is not changed. On this last circumstance, it is easy to calculate the exact quantity of pure charcoal and oxygen in carbonic acid gas. The weight of 100 cubic inches is to 100 cubic inches of oxygen gas, as 47 is to 34; so that 47 parts in weight of carbonic acid gas must be composed of 34 parts of oxygen and 13 of charcoal.

Carbonic acid is decomposed by heating potassium in it; the metal combines with the oxygen, and the charcoal is deposited in the form of a black powder. The principal consumption of the carbonic acid in the atmosphere, seems to be in affording nourishment to plants; and some of them seem to be supplied with carbon chiefly from this source.

This acid is formed during fermentation, combustion, putrefaction, respiration of animals, and a number of operations taking place on the surface of the earth; and there is no other process known in nature by which it can be destroyed but by vegetation.

We have seen that this gas can be formed by burning pure charcoal in oxygen gas; but it is unnecessary to have recourse to this method of obtaining it, as it exists in great abundance in all objects around us. It constitutes about one thousandth part of the air we breathe. We have shown that it composes nearly one half of the substance of vegetable gum; three-fourths of resin; more than three-fourths of olive oil; more than one half of woody fibre of beech and oak; nearly one half of animal jelly, and more than one half of the cream of the cow—our own bodies are

formed in a large degree from the same material. So nearly is it true, that we are a set of *block-heads*, that even our brain, that organ of the sensorium, and immediate receptacle of the emanation of the *Deity*, is in its component parts but little different from the oak, which stands waving in the forest. One eighth part of the substance of this globe, is supposed to be formed of calcareous matter, or lime, in its various forms; and from 41.4 to 43 parts in the hundred, of all that substance, is composed of the gas of which we are treating. It forms the difference between iron and steel. It enters into the composition of the spirit in wine, cider, and other liquors, and forms their lively sparkling, and acid taste. It is likewise this gas which gives value to our mineral waters, and is procured by pouring sulphuric acid on marble. In every 47 cubic inches of air taken in that delightful beverage, we take 13 grs. of charcoal.

The purest state of carbon is the concrete form found in the diamond, which is nearly pure charcoal in a chrysalized form. It is a stalactite of charcoal.

The carbonic acid gas is the most ponderous portion of the atmosphere, and consequently is sometimes found in cellars, wells, and such places as cannot be ventilated by a current of air; where it often proves fatal to human life.

This gas does not support combustion—a lighted taper being introduced into a jar of it is immediately extinguished.

It will not support animal life; hence the danger of burning charcoal in an open furnace, in a tight room, which has no chimney. In combustion of charcoal, the oxygen of the air enters into combination with the dissolved charcoal, as we have seen, and every 13 parts of coal consumes 34 parts of oxygen of the air in the room, and forms carbonic acid gas, which is inimical to animal life. We often hear of persons losing their lives from this cause.

This gas is heavier than common air. Its specific gravity, according to Davy, is 1.5196. 100 cubic inches of this gas weighs 46.5 grs. and the weight of the combined charcoal in that quantity is 12.7 grs.

Carbonic acid gas is absorbed by water. Fill partly a jar with this gas, and let it stand over water for a few hours—an absorption will gradually go on, till at last none will remain. This absorption is infinitely quicker when agitation is used. In this way water may be charged with rather more than its own bulk of carbonic acid gas.

On a review of the facts which we have laid before our readers, concerning these gases, who

can hesitate to decide the long agitated question; what forms the pabulum of plants?

We see that wherever oxygen, hydrogen and carbon, with light and heat, are present, vegetation progresses; where either of them is wanting, vegetation ceases. Nitrogen is sometimes present, but so seldom, and so little known, we do not take it into consideration.

We likewise see, that however varied the form, color, or qualities of vegetables, they are resolved into the elements of these three gases.

The tree is formed from its sap; the sap is taken up in a watery state by the roots; water is composed of one part oxygen, and two parts hydrogen; water absorbs its own bulk of carbonic acid gas; and 47 parts of this gas contains 13 parts of charcoal; which constitutes nearly one half the substance of vegetable matter; and oxygen and hydrogen form nearly all the remaining parts. Then carbon, hydrogen, and oxygen, must form the food of plants. But can all these varied forms presented in the vegetable kingdom, be owing to the different combinations of these simple substances? Whence all this variety of combination? Every organized substance possesses a peculiar structure, on the regular exercise of the functions of which, depends their increase and perfection. All the thousands of forms, which we observe in the vegetable kingdom, proceed from this varied structure.

These, as they change, Almighty Father, these,
Are but the varied God.

Mysterious round! what skill, what force divine,
Deep felt in these appear! a simple train,
Yet so delightful mix'd, with such kind art,
Such beauty and beneficence combin'd;
Shade, unperceiv'd, so softening into shade;
And all so forming an harmonious whole;
That, as they still succeed, they ravish still.
But wandering oft, with brute unconscious gaze,
Man marks not Thee, marks not the mighty hand,
That ever-busy, wheels the silent spheres;
Works in the secret deep; shoots, steaming, thence
The fair profusion that o'erspreads the Spring:
Flings from the sun direct the flaming day;
Feeds every creature; hurls the tempest forth;
And, as on earth this grateful change revolves,
With transport touches all the springs of life.

INVITATION TO SEND SPECIMENS TO LYCEUMS.—We have shown in our back numbers, of what substances vegetables are composed; we have likewise given the anatomical structure of the leaves of plants, and have shown their adaptation to the office of concocting the sap of the plant; and we have exposed to view the system of vessels for returning to its appropriate seat in the stock, and in the seed vessels, the prepared sap on which depends the increase and perfection of every part of the plant.

It remains for us now to take up the roots of plants, and to show how they prepare the fluid out of which the future parts of plants, in all their

thousand varied forms, are obtained from the elements and the earth.

To aid us in this interesting enquiry, we are desirous of obtaining the aid of the farmers. We should be glad to obtain vegetables and grasses of every description, with their roots entire, to be deposited in the Baltimore Union Lyceum Rooms.

We are at present desirous of obtaining a stalk of corn with its roots at full length, for the benefit of lectures on vegetable physiology in that institution; which may be sent to this office, or directed to the Lyceum Rooms in North-street.

These rooms will be ready in a few days to receive visitors, and will display a rich assortment of specimens. In this Institution, we will endeavour to superintend the agricultural interest, as fast as specimens can be obtained. The curators have made arrangements to obtain from foreign states, such specimens of marls, and mineral manures, as have been used, with success, and can be obtained; and offer to exchange specimens for corn and grasses, carefully prepared with all their parts in perfection; or other articles which may be of interest.

GAMA GRASS.—We were visited by a gentleman from New Orleans, the other day, who came to our office to make some enquiry about gama grass—he had heard much said of it of late, and wished to get some of the seed. On being shown a stalk of this grass hanging in the office, he was much surprised to find it an old and familiar acquaintance. It formed his chief dependance for pasture and hay, on one of his plantations below the city. He spoke highly of its qualities for hay, when cut young, and said that cattle fattened well on it in a green state, when a foot or 18 inches high. The only difficulty with it is to keep it down; he says, that when grown from 5 to 9 feet high, and when old, it is not relished by stock. The cattle then go among it to protect themselves from the muschetoës. At this season of the year, or later, they mow it off, burn it, or get it down in any way they can, and for the rest of the fall it makes the most delightful pasture imaginable. He was unacquainted with the fact that it would grow on high land; it being confined in his neighborhood to low and wet grounds.

When we consider that this grass will grow in our climate, and on dry as well as wet soil, it must become a very desirable object with our farmers to obtain it. If the low lands in our neck, and along the banks of rivers and creeks, and on the Eastern Shore of Maryland, instead of being covered with putrefaction, producing disease, and depopulating our country,—we say, if these situations were well set with this grass, and clothed with a verdure of flowing green the year round,

and producing fine droves of flabby short-horns, in place of miasmata and death,—we think it would be an improvement in agriculture. And why can this not be done? The gama grass on the experimental farm attached to this establishment, flourishes away finely this dry season.

KNOT GRASS.—The following notice, we received of a gentleman from N. Orleans. We think from his account of it, that it is an enemy which deserves to be strictly watched. Our legislatures pass prohibitory laws against the introduction of disease, which is floating in the atmosphere; they might be much better employed in attacking the more tangible object of knot grass.

Knot grass, or as the French call it coco, grows in the south and western states; in Mississippi, Missouri, and is spreading along the Ohio river.—This grass is a great evil, and threatens destruction to their country. It spreads rapidly, like all evil examples in the moral world, both from the seed and roots. It grows with bulbs or knots on the root, runs very deep, and wherever a fibre is left it takes root and spreads. Our informant observed it on the banks of the Ohio on his passage up. It will be a good thing for farmers to keep a sharp look out, and attack it on its first approach in the country. We sound the alarm, and shall be glad to hear more of it. If it is on its way up the Ohio, with the steamboat navigation, it may soon reach us. Our informant observes that it entwines around the roots of the sugar cane, and it is almost impossible to subdue it.

[From the Cultivator.]

RIEBOB GRASS.—The ribbon grass of our gardens, (*Phalaris Americana*) is likely to become of great value in our husbandry: it has been found to be better adapted to wet boggy grounds than any other species of grass; to propagate rapidly either by its seeds or by its roots; to yield a very large product in hay or pasture, and to be well adapted to farm stock. The first suggestion of this fact came to us in a letter from Abednego Robinson of Portsmouth, N. H. who says the discovery was accidental.

"A neighbor, he says, wishing to get rid of some of the roots which encumbered his garden, threw them into a bog, where they took root and spread over a large space of ground, excluding every other plant. The water flows through the roots at all seasons. The turf has become so solid as to bear a cart and oxen. I walked through this grass when in bloom, and never beheld a more handsome and luxuriant growth. It stood perfectly erect, full of large leaves, even, and from four to five feet high. It will produce two good crops in a season, and springs up immediately after the scythe. It produces excellent food; cattle feed it close and appear to be more fond of it when made into hay than any other grass. I have spoken for one-half of the roots of the patch, and have ground in my meadow into which I in-

tend to transplant them about the distance of corn-hills."

On a recent visit from the Hon. E. Goodrick, of Harford, we were happy to receive, from that gentleman, a confirmation of the good opinion of the *phalaris* which had been induced by Mr. Robinson's letter. It has been found as beneficial in Connecticut as New Hampshire. Not recollecting the particulars narrated, we would beg of Mr. Goodrick, when he sees this, to forward them to us, in order that we may furnish them correctly. The subject merits further attention; and if our anticipations are not irrationally founded, the *Phalaris Americana* will yet become the gama grass of the north. It is truly perennial, spreads rapidly, and may be inoculated in the manner suggested by Mr. Robinson, especially in a soil saturated with water, with great facility and a trifling expense.

THE BREEDER & MANAGER.

[From the Farmers' Series.]

THE SHORT-HORNS.—Wherever the improved short-horns have been crossed with other cattle their superiority is equally manifest, in respect of dairy qualifications, as in every other. On this subject the writer is able to avail himself of the evidence of a gentleman who has addressed a communication on the subject to the conductor of the *British Farmer's Magazine*, which is so pertinent to the present subject that the temptation to take an extract is irresistible. It is as follows:—"In the 27th number of your valuable Magazine, when giving an account of my two years old steer, you also give an extract from my letter on the advantages of crossing cows of different breeds with improved short-horn bulls; and in confirmation of this opinion (not hastily adopted, but the result of several years' practical experience, and a close attention to the experiments of several friends during the last seventeen years,) I send you a short account of a two-year old Durham and Devon heifer of mine, lately slaughtered by Mr. William Daniel (of Abergavenny,) and accompanying it with a few brief statements of the advantages derived from this system by several of my own personal friends.

"This heifer was the second cross, and was of a light grey color. She weighed 35 scores and 8 lb.; rough fat, 98 lb.: she was allowed to be the fattest and best beast of her age, in all points, ever seen in Abergavenny. She had a dead calf about six weeks before Christmas; was dried the 17th of January, and killed the 10th of June. She sold for £19 3s 6d.

Her live weight, on the 8th of June, was	1232
Ditto, on the 17th January,	840

Increase in 140 days,	392
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"Being aware that strong prejudice and much incredulity existed on the subject of crossing, I courted the attention of all the respectable farmers, breeders, and feeders in this neighborhood. Many came to see her when first put up, and repeatedly afterwards during the five months she was feeding; and they all concurred in saying she went on faster than any beast they had ever seen. She never had any oil cake.

"I have seen many excellent beasts bred from

improved short-horn bulls and long-horn cows: indeed, I never knew one of these bulls put to any cow, where the produce was not superior to the dam; but the cross which I advocate, and with which I am best acquainted, is that with the Devon cow. I have uniformly remarked, that each succeeding cross was attended with a proportionate improvement in size, quality of flesh, and aptitude to fatten. In every instance they have shown themselves superior milkers, and stand to the pail till within six or eight weeks of calving; and several instances have come under my own knowledge where they have never been dry since they first calved; and so highly are they prized as milkers, that a friend of mine, who hired out dairies, informed me that the dairyman gave him nearly £2 per cow per year more for the half and three-quarter breeds than they would give for cows of other breeds.

"A friend of mine had about a dozen North Devon cows, small in size, but nice in quality, and from these he commenced, about twenty years since, breeding with short-horn bulls. He has since invariably used those bulls. With each succeeding cross the stock have rapidly improved in every essential, and the only trace of the Devons which I could perceive when I last saw them, about two years since, was a peculiar richness in their color. He breeds about thirty annually, and generally sells his three-years old in the autumn, at £17 to £22; and I have known him sell in-calf heifers to jobbers in fairs as high as 30 guineas each. All his stock are superior milkers. Here we have twenty years' experiment, and continued improvement.

"Within the last eight years I have sent many North Devon heifers to Ireland, to friends residing in different counties; and some of them occupying land of very inferior quality. I also sent over two young Durham bulls, from the stock of the Rev. Henry Berry, to cross them with. They have all crossed them with short-horn bulls at my recommendation, and the accounts they give are most satisfactory. They say the two-years-old half-breeds are as good as the three-years-old Devons, and are all good milkers. One of these bulls, by Mr. Berry's *Mynheer*, has been four times exhibited in three different counties, and has each time taken the first prize. He was last year sold for 60 guineas, and is now serving cows at £1 each.

C. H. BOLTON.
Brynderry, near Abergavenny.

An opinion generally prevails that the short-horns are unfitted for work; and in some respects it is admitted they are so: but the correct reason has not been assigned, and the question may fairly come briefly under notice. That they are willing and able to work, the writer knows, from one in particular among many instances. He has now a team of two years-old steers, working constantly nine hours a day; a system he would by no means recommend, and forced on him by circumstances connected with entrance on a new farm, at present ill adapted to grazing cattle. They work admirably; but surely cattle which, as the preceding account proves, will go as profitably to the butcher at two-years-old as any other breed at three, and as many even at four, ought never, as a general rule, to be placed in the yoke. No beast, in the present advanced state of breeding,

ought to be put upon a system which arose out of the necessity of obtaining compensation by work for the loss attending a tardy maturity. But where it may be convenient, the short-horns, particularly the bulls, work admirably, as their great docility promises; and there are many operations going on in every farm which a bull would be judiciously employed in performing. And as the bulls of this breed are apt to become useless, from acquiring too much flesh in a state of confinement, moderate work might, in most cases, prove beneficial for such as are intended for use at home.

As was before observed, the specimens which accompany this account will render little comment necessary on their form. With deference, however, it is submitted to the breeders of short-horns that they should avoid breeding from too close affinities, and, while they steer clear of coarseness, should require a sufficiency of *masculine* character in their males.* This is a point in which many short-horns are rather defective, and it is one of infinite importance. Add to this, that if, in many instances, the length of the carcase were abated, as well as that of the legs, a hardier animal, with equal size and on a more profitable scale, would be produced. The facilities for making this improvement are sufficiently numerous, the short-horns being now more generally diffused. That wider diffusion also multiplies the means of selecting for milk; a quality which should not be lost sight of: for it is the combination of perfections which has conferred, and will perpetuate, the superiority of this breed of cattle.

The colors of the improved short-horns are red or white, or a mixture of the two, combining in endless variety, and producing, very frequently, most brilliant effect. The white, it is very probable, they obtained from an early cross with the wild breed; and whenever this color shows itself, it is accompanied, more or less, with a red tinge on the extremity of the ear: a distinctive character, also, of the wild cattle. No pure improved short-horns are found of any colors but those above-named. There is a large coarse short-horn, prevailing particularly in Lincolnshire, denominated in the quotations of the Smithfield markets 'Lincolns,' and generally sold at prices below those of any other cattle. These are frequently black, black and white, blue, and dun; but they have no further affinity with the improved short-horns than as the latter have been referred to for their improvement, which has been accomplished to a considerable degree. A similar description of large, coarse short-horns, of these

* Lord Althorp first adopted the short-horns in 1818, when he purchased the bull *Regent* at Mr. R. Colling's sale, with several of that gentleman's cows; and since that time his lordship has been unremitting in his attempts to improve the breed. The bull *Firby* is good in almost every point. His flanks, loins, hips, and bosom are excellent. His only failing is in the crop; yet we are told by his lordship's very intelligent steward (Mr. Hall), and we had proof of the accuracy of the observation, when we had the pleasure of looking over the Wiseton herd, that, using him six years, very few of his stock have inherited this imperfection.—*Edit.*

objectionable colors—for they generally accompany a bad quality of flesh—prevails in some of the midland counties. They are great consumers of food, gutty, and particularly low and bad in the loins, with excessively heavy shoulder-blades. The owners of this stock, however, are crossing the improved breed; but the dairy-farmers of Gloucestershire are so much alive to the superiority of the short-horns, that they lay hold with avidity of any thing which approaches them in color, or is called by the name. Indeed, should this breed continue to obtain the requisite attention, to maintain it in its present excellence, it is not too much to suppose that it will, before long, alter the character of the cattle in most of the breeding districts. It would have been thought incredible some years ago, but is nevertheless the fact, that they are treading closely on the strong holds even of the Herefords; and an observing traveller, who sees their colors starting to view in very unwonted situations, must pronounce them universal intruders.

Thus far Mr. Berry, whose admirable account of the improved short-horn cattle our readers will duly estimate. There is no point which he has more triumphantly illustrated, than the value of this breed, as containing a combination of perfections. It was a point which was in a manner lost sight of by the early improvers. They developed the aptitude to fatten, and the early maturity of the short-horns, but they neglected, and were beginning to lose, their milking properties. This is also the grand error of many modern breeders; and hence arose the general impression, and founded on careful observation, that in proportion as the grazing properties of the beast were increased, its value for the dairy was proportionably diminished.

The Yorkshire cow, which now almost exclusively occupies the London dairies, is an unanswerable proof of the possibility of uniting the two qualities to a great degree of perfection, but not at the same time—they succeed to each other, and at the periods when it suits the convenience of the dairyman that they should. Twenty years ago the Yorkshire cow was, compared with other breeds, as great a favorite in the London market as at present. She yielded more milk, in proportion to the quantity of food consumed, than could be obtained from any other breed; but when the dairyman had had her four or five years she began to fall off, and he dried her, and sold her. It took a long time to get much flesh upon her bones; and when he calculated the expense of bringing her into condition, he found that his cheapest way was to sell her for what she would fetch, and that seldom exceeded £5.

By degrees, however, some of the more intelligent of the breeders for this market began to find that, by cautiously adopting Mr. Berry's principle of selection,—by finding out an improved short-horn bull, whose progeny were generally milkers, and crossing some of the old Yorkshires with him, and then going back to the pure blood—but still regarding the milking properties of the dam, and the usual tendency to possess these qualities in the offspring of the sire—they could at length obtain a breed that had lost little of the grazing properties of the new breed, and retained, almost undiminished, the excellencies of the breed for the

pail. Thence it has happened that many of the cows in London dairies are as fine specimens of the improved short-horn as can possibly be produced. They do not, perhaps, yield quite so much milk as the old ones, but what they do yield is of better quality; and whether the dairyman keeps them a twelvemonth, or a little longer,—and this is getting more and more the habit of these people,—or whether he milks them for three or four years,—as soon as he dries them, they fatten as rapidly as the most celebrated of the improved breed. Mr. Parkinson gives an account of one which, after being milked to the 5th of April, was put to grass with others, and sold on the 5th of July, after 91 days' grazing, having made in that time nearly 2s a day.

[From the London Lancet.]

LECTURES ON VETERINARY MEDICINE,
Delivered in the University of London, by Mr.
Youatt.—LECTURE IV.—CONTINUED.

THE NOSTRILS AND THE SCHNEIDERIAN MEMBRANE.

Of Membrane generally.—As this is the first membrane which has presented itself to our consideration, I must say a few words of the nature and structure of membrane generally. It is that portion of the frame which is the basis and mould of all the rest. It is diffused over the whole frame. It composes the tissue in which the earthy matter of every bone is deposited, and constitutes the main bulk of every bone. It encloses every muscle as its external sheath; it enwraps every bundle of fibres, every individual fibre, and perhaps, the ultimate fibre may consist of condensed membranes. I will not detain you with any theory of its own ultimate structure, whether solid or vascular; each has its supporters; while a third party maintains that the fibre of the membrane is alive; is composed of innumerable living beings. I will not detain you with this, but proceed to observe that the tendons are composed of flattened plates of membrane; the ligaments of membrane otherwise arranged; the cartilages, terminated, defended by, made up of membrane; the brain enveloped by it, and formed of it; the nerves surrounded by it, every fibril coated with it; the nervous substance seemingly fibrous; and, the properties of membrane being cohesion, extensibility, and elasticity, the bladder, the stomach, the heart, the arteries, the integument, composed of it, and illustrating the qualities of it.

Nor will I detain you with the chemical history of membrane; or its division into cellular, or adipose, or fibrous, or serous; these will in turn come before us, but content myself with observing, that this is a *mucous* membrane, so called from the fluid discharged from its vessels,—a true secretion;—every mucous membrane supplied with innumerable glands; lining those cavities which communicate with the external air, as the mouth, the respiratory passages, the digestive; apparently far more important than the serous membranes; the serous in many cases being only designed to prevent friction and facilitate motion, while the mucous membranes are generally connected with important functions—the mouth with taste, the nose with smell, the stomach with digestion, and the intestines with nutrition; possessing more blood-vessels, more nerves, consequently more prone to disease, and disease of a partic-

ular character; inflammation in one taking on an ulcerative character, the other accompanied by effusion and adhesion; one involving, by intercommunication of nerves and vessels, surrounding parts; the disease of the other strangely peculiar to itself—peritonitis running its course without affecting the mucous membrane of the intestines, the mucous membrane seldom long or violently inflamed, without involving the peritoneal; inflammation of a serous membrane rarely accompanied by prostration of strength; that of a mucous membrane speedily followed by debility.

The Schneiderian Membrane.—The mucous membrane lining the nose is continuous with that of the sinus with which the nasal passage communicates, and with those of the nasal duct, the lachrymal sac, the conjunctiva, the membrane of the pharynx, the trachea, the air-cells, the mouth, the tubes of the parotid and submaxillary glands, the Eustachian tubes, the tympanum of the ear; the œsophagus, the stomach, the intestines, the biliary and pancreatic vessels, the urinary and genital passages.

The Schneiderian membrane may be considered as presenting two surfaces, an adherent and a free one; the adherent being very firm, with difficulty separated from the bone beneath, and forming a kind of periosteum to the bone. Lying on this is a reticulated mass of blood-vessels and nerves, particularly on the septum, and the æthmoid and superior turbinated bones. There is no part of the frame more vascular. On this is the free surface, covered with a mucous fluid to protect it from the painful or dangerous influence of the air, the food or other foreign objects, and being a kind of factitious integument, particularly beneficial in the respiratory passages, subject to the injurious influence of sudden change of temperature or stimulating gases, and in the intestines, defending them from the occasional acrimony of some of the ingesta. When this membrane is carefully examined, there are numerous minute rounded apertures, irregularly distributed, most plentifully on the lower part of the septum, and on the inferior turbinated bone—smaller, and scarcely to be traced on the upper part of the septum, or on the æthmoid bone: given mostly where there is most exposure to injury. Superiorly it is comparatively devoid of nucus, that the olfactory nerves and the lateral nasals may ramify with more effect, and be more sensible to impression. When the intermediate substance is traced with great minuteness, it is found to be glandular; but not composed of distinct glands, or even of the smallest granulations, but a bed of glandular matter. The natural discharge is limpid, small in quantity, and scarcely seen at the nostril. Under inflammation it becomes increased in quantity, thickened, opaque, and even purulent, and that either with or without ulceration.

In the convolutions of the æthmoid and turbinated bones, and in the sinuses of the face and head, the membrane is thinner, more delicate in its structure, and the mucous secretion lessened in quantity. These parts are out of the reach of danger. No current of air blows upon them—no foreign body can injure them; and, their function being limited, they have fewer blood-vessels and nerves; the membrane is more easily torn from its attachment, and it possesses comparatively little

sensibility. Although the function of these sinuses and their membranes is imperfect, it seems to be of a double character. The voice is effected by the sinuosities of the passages, and the air lingering in them, the sense of smell is possibly more acute and faithful.

These are mucous membranes. Then their first and distinguishing characteristic under inflammation is, increased mucous secretion, and that often assuming a purulent form. This increased secretion, under inflammation, is a beautiful provision of nature: it warns us of the presence of the evil, it relieves the engorged vessels, and it covers and defends them from those painful impressions to which their increased sensibility would expose them.

The mucous membrane of the nose, although smooth and soft, is covered by innumerable papillæ. On the superior portion of the nasal cavity, both on the septum and the æthmoid bone, they are particularly evident. These have nothing to do with secretion or exhalation; they are connected with the sensation of the part; they are the termination of the nerves, whether of peculiar or common sensation. These papillæ are smaller than in most mucous surfaces—small indeed when compared with those on the tongue. Continually exposed to rapid currents of air, and to the influence of pungent gasses, and to extreme variations of temperature, little common sensibility was wanted, it was only needed that the sense of smell should be acute in a degree corresponding with the situation and habits of the animal. If the papillæ, however, are not large, they are more numerous than on other membranes, the olfactory nerve is more spread over the surface than terminating in fibrilli.

The nasal cavity is plentifully supplied with blood-vessels, and particularly from the lateral nasal branch of the internal maxillary artery, which enters through the æthmoid cells, to be distributed chiefly over the membrane of the septum. Other branches ramify on the æthmoid and turbinated bones; and the lower part of the nostrils is indebted to the facial artery and to the palatimaxillary.

THE GARDENER.

INSECTS INJURIOUS IN HORTICULTURE.—In the summer of 1826, when at Brussels, I observed that delicious vegetable of the cabbage tribe, so largely cultivated there, under the name of *Jets de choux*, and which in England we call Brussels sprouts, to be materially injured in the later stages of its growth by the attacks of the turnip-flea, and other little beetles of the same genus (*Haltica*), which were so numerous and so universally prevalent, that I scarcely ever examined a full-grown plant from which a vast number might not have been collected. Some plants were almost black with them, the species most abundant being of a dark æneous tinge. They had not merely eroded the cuticle in various parts, so as to give the leaves a brown blistered appearance, but had also eaten them into large holes, at the margin of which I often saw them in the act of gnawing; and the stunted and unhealthy appearance of the plants, sufficiently indicated the injurious effect of this interruption of the

proper office of the sap. What was particularly remarkable, considering the locomotive powers of these insects, was that the young turnips, sown in August after the wheat and rye, close to acres in Brussels sprouts, (which all round Brussels are planted in the open fields among other crops) infested by myriads of these insects, were not more eaten by them than they usually are in England, and produced good average crops. It would seem, agreeably to the fact already mentioned, that they prefer the taste of leaves to which they have been accustomed, to younger plants of the same natural family; and hence, perhaps, the previous sowing of a crop of cabbage plants in the corner of a field meant for turnips, might allure and keep there the great bulk of these insects present in the vicinity, until the turnips were out of danger.—*Kirby and Spence's Introd. to Entom.*

HYPOGYMNA DISPAR.—These larvæ were so extremely numerous in 1826, on the lines of the Allée Verte at Brussels, that many of the trees of that noble avenue, though of great age, were nearly deprived of their leaves, and afforded little of the shade which the unusual heat of the summer so urgently required. The moths which in autumn proceeded from them, when in motion towards night, swarmed like bees, and subsequently on the trunk of every tree might be seen scores of females depositing their down-covered patch of eggs. In the park they were also very abundant; and it may be safely asserted that, if one half of the eggs deposited were to be hatched, in 1827 scarcely a leaf would remain in either of those favorite places of public resort. Happily, however, this calamity seems likely to be prevented. Of the vast number of patches of eggs which I saw on almost every tree in the park about the end of September, I could two months afterwards, to my no small surprise, discover scarcely one, though the singularity of the fact made me examine closely. For their disappearance, I have no doubt, the inhabitants of Brussels are indebted to the titmouse (*Parus*), the tree-creeper (*Certhia familiaris*), and other small birds known to derive part of their food from the eggs of insects, and which abound in the park, where they may be often seen running up and down the trunks of trees, at once providing their own food, and rendering a service to man, which all his powers would be inadequate completely to effect.

Ceaur, in certain seasons, found these patches of eggs so numerous, that in the Bois de Boulogne there was scarcely an oak, the under side of the branches of which was not covered by them for an extent of 7 or 8 feet. He informs us that the eggs are not hatched till the following spring.—*Ibid.*

LIQUID MANURE.—The farmers and gardeners of German Switzerland give the name of *gülle*, in French *lizier*, to the liquid manure obtained from their stalls and stables, and collected into underground pits or reservoirs, in which it is allowed to ferment in a mucous or slimy state. The manner of collecting it, adopted by the agriculturists of Zurich, is as follows:—The floor on which the cattle are stalled is formed of boards, with an inclination of 4 in. from the head to the hinder part of the animal, whose excrements fall into a gutter behind, in the manner usual in English

cow-houses. The depth of this gutter is 15 in., its width 10 in.; it should be so formed as to be capable of receiving at pleasure water to be supplied by a reservoir near it: it communicates with five pits by holes, which are opened for the passage of the slime, or closed, as occasion requires. The pits, or reservoirs of manure, are covered over with a floor of boarding, placed a little below that on which the animals stand. This covering is important, as facilitating the fermentation. The pits, or reservoirs, are made in masonry, well cemented, and should be bottomed in clay, well beaten, in order to avoid infiltration. They should be five, in order that the liquid may not be disturbed during the fermentation, which lasts about four weeks. Their dimensions should be calculated according to the number of animals the stable holds, so that each may be filled in a week: but whether full or not, the pit must be closed at the week's end, in order to maintain the regularity of the system of emptying. The reservoirs are emptied by means of portable pumps. In the evening the keeper of the stables lets a proper quantity of water into the gutter; and on returning to the stable in the morning, he carefully mixes with the water the excrement that has fallen into it, breaking up the more compact parts, so as to form of the whole an equal and flowing liquid. On the perfect manner in which this process is performed, the quality of the manure mainly depends. The liquid ought neither to be thick, for then the fermentation would be difficult, nor too thin, for in that case it would not contain sufficient nutritive matter. When the mixture is made, it is allowed to run off into the pit beneath, and the stable-keeper again lets water into the trench. During the day, whenever he comes into the stable, he sweeps whatever excrement may be found under the cattle into the trench, which may be emptied as often as the liquid it contains is found to be of a due thickness. The best proportion of the mixture is three-fourths of water to one-fourth of excrement, if the cattle be fed on corn: in a course of fattening, one fifth of excrement to four-fifths of water will be sufficient.—*Bull. du Comité d'Agri. de la Soc. des Arts de Genève.*

This mode of increasing the manure produced by stalled cattle and cows, is in general use in Holland and the Netherlands, and we have seen it practised in France, at Trappe and Grignon, near Versailles; at Roville, near Nancy; at Ebersberg and Schleissheim, near Munich; and at Hohenheim and Weil, near Stuttgart. We would strongly recommend the practice to the British farmer, and not to the farmer only, but to every cottager who keeps a cow or pig; nay, to the cottager who is without these comforts, but who has a garden; in which he could turn the great accession of manure so acquired to due account. Let him sink five tubs or large earthen vessels in the ground, and let the contents of the portable receiver of his water-closet, all the water used for washing in the house, soap-suds, slops, and fermentable offal of every description, during a week, be carried and poured into one of these tubs; and if not full on the Saturday night, let it be filled up with water of any kind, well stirred up, the lid replaced, and the whole left for a week. Begin on the Monday morning with another tub; and

when, after five weeks, the whole five tubs are filled, empty the first at the roots of a growing crop, and refill; or use two larger tubs, and continue filling one for a month; then begin the other, and at the end of a month empty the first; and so on.—*Cond.*

From the Gardener's Magazine.

Experiments made by M. Toussaint, Nurseryman at Berlin, to ascertain what Influence different Soils and Manures have on Annual Plants.

M. Toussaint says a satisfactory result of this object could only be expected after experiments conducted through several years; but, as one summer (the given time to answer this prize question) is too short to answer this question with certainty, he considers the following results only a proof that it would be worth while to carry these experiments to a greater extent. For his observations he chose melon plants (*Barbaresken*, a sort of cantaloupe,) a variety which, by its size and abundance of juice, is most fitting to show minutely what influence different soils and manures have upon it; which, however, could only be correctly ascertained in the course of time, as it must be considered that the seeds were taken from fruit produced in a different soil from that in which the experiment was made. The seeds were chosen as much as possible of equal weight and size. Fresh dung from pigs, cows, and horses, and loam, and decayed wood, were the ingredients with which the experiments were carried on. These were mixed with leaf mould in the following proportions: firstly, one third of leaf mould, and two thirds of one of those manures; secondly, one third of one of the above manures, and two thirds of leaf mould, which gave ten different mixtures, in which the seed were sown. The temperature was also ascertained by a thermometer fixed in the middle of each frame. Two fresh and two old seeds were sown at an equal depth in each light, from which two plants were afterwards removed into another frame, filled with common garden soil only. The progress and result of this experiment is minutely shown in a table, and here it is only necessary to mention that twenty plants from old seeds produced eight fruits more than twenty from fresh seeds; and that the fruits of those plants which had not been transplanted weighed, on an average, 2 lbs. 2 oz.; while those from plants which were transplanted weighed 2 lbs. 8 oz. on an average. Finally, M. Toussaint wishes that such experiments may be carried on by others, and a garden appropriated to this purpose, to ascertain the best and most durable soil and manure for those plants, [Mr. Figgans' communication, p. 567., on the results of growing the cucumber and the melon in heath mould, is congenial with the above experiments.]

The result of this experiment, respecting the flavor, was, that the best-flavored fruit were produced in the mixture of two thirds leaf mould and one third horse-dung; the fruits produced in the other mixtures were less delicate, although superior in flavor to others produced in the common garden soil. The least-flavored, which were sweet, but mealy, were those produced in the mixture of two thirds cow-dung and one third turf.

MISCELLANEOUS.

FRANCE.—French silks exported to England. It is not so stated, but we suppose that the value in France is shewn. For ordinary purposes, 5 francs may be counted as equal to one dollar.

1818	1,744,105
1819	2,713,583
1820	2,727,748
1821	2,815,178
1822	3,516,328
1823	2,901,670
1824	3,856,465
1825	6,104,103
1826	7,596,421
1827	11,450,119
1828	17,311,710
1829	10,483,777
1830	15,204,388

The salary of the Lord Chief Justice of England is \$44,444. The salary of the Chief Justice of the United States is \$5,000.

BEAUTIFUL EXTRACT.—By Honorable Joseph Hopkinson, L. L. D.—“The American parent does an injustice to his child which he can never repair, for which no inheritance can compensate who refuses to give him a full education because he is not intended for a learned profession—whatever he may intend, he cannot know to what his son may come, and if there should be no change in this respect, will a liberal education be lost upon him because he is not a lawyer, a doctor or a divine? Nothing can be more untrue or pernicious than this opinion. It is impossible to imagine a citizen of this commonwealth to be in any situation in which the discipline and acquirements of a collegiate education, however various and extended, will not have their value. They will give him consideration and usefulness, which will be seen and felt in his daily intercourse of business or pleasure; they will give him, weight and worth as a member of society, and be a never failing source of honorable, virtuous and lasting enjoyment, under all circumstances in every station of life.—They will preserve him from the delusions of dangerous errors, and the seduction of degrading and destructive vices. The gambling table will not be resorted to, to hasten the slow and listless step of time, when the library offers a surer and more attractive resource. The bottle will not be applied to, to stir the languid spirit to action and delight, when the magic of the poet is at hand to rouse the imagination, and pour its fascinating wonders on the soul. Such gifts, such acquirements, will make their possessor a true friend, a more cherished companion, a more interesting, beloved and loving husband, a more valuable and respected parent.”

EXTRAORDINARY PERFORMANCE.—A young man of Mechanicsville, Bucks County, undertook on Fifth day, the 7th inst. in the field of Everard Foulke, Buckingham, to rake and bind 25 dozen of oats in 60 minutes; and to the astonishment of all present, he performed the task in 51 minutes: every dozen judged to make one bushel of clean oats.—*Doylestown Intelligencer*.

COCKROACHES.—A gentleman has recently discovered that spirits of turpentine is an effectual remedy against the depredations of cockroaches. He recommends to put a little of it upon the shelves or sides of book cases, bureaux, armories, or other furniture in which they take shelter, and these troublesome insects will soon quit, not only the furniture, but the room.—The remedy is simple, and is easily obtained by every person who wishes it. It is not unpleasant to the smell, soon evaporates, and does no injury to furniture or clothing.

SPONTANEOUS COMBUSTION.—An instance occurred in this city, a night or two ago, which might have proved very destructive in its consequences. A canvas cover for a Jersey waggon, painted during the day in a coachmaker's shop, and in the evening was compactly folded up, and left on the top of the vehicle for which it was intended. Next morning, it was found that it had taken fire from the linseed oil with which it was impregnated, and was entirely burnt up. Nothing probably saved the shop and its contents, but the circumstance of there being more of tow than cotton in the canvas, which is a less combustible material. The cotton cords attached to it were totally consumed, leaving not a vestige behind.—*Raleigh Register*.

THE SCHOOLBOY'S EXCUSE FOR BEING LATE.—Why so late? said a schoolmaster to a little urchin, as he entered the room, on a cold slippery morning in February. “Why, sir,” replied the boy, “I would take one step forwards, and slide back two.” “Indeed!” said the teacher; “then how did you get here at all; if that was the case?” “Oh,” said the boy, scratching his head, on finding himself caught, “I turned around and walked the other way.”

An editor, who deprecates the employment of females as type-setters, and who thinks they had better be employed in making pudding than pi, attempts to throw a damper upon the custom, by persuading his friends never to choose a wife from a printing office. We are of opinion, that the quickest way to get rid of them, is to marry them off, faster than they learn the art.—*Boston Post*.

Goldsmith, after he had written the Vicar of Wakefield, was in a state of perplexity; he owed his landlady £10. She was very urgent for payment, but give him to understand if he married her the bill was settled. Dr. Johnson called to see him, looked over his manuscript and thought he would try and raise the money. He took the Vicar of Wakefield to the bookseller, and sold it for a considerable sum; which paid the widow's bill and saved him from matrimony.

CONNECTICUT.—The school fund of Connecticut now amounts to \$1,929,733 60, and is invested in the following manner. In bonds, contracts and mortgages, 1,432,620 01; bank stock 147,450 00; buildings and cultivated land, 197,018 14; wild lands, 134,202 16; stock on farms, 1,810 00. The amount on hand in cash is \$16,638 29.

I never knew an ignorant and low minded person think well of those around him. He will contradict the smallest errors in others, while his own pass unheeded. No person has his knowledge—no person his understanding. He is the greatest talker and his voice the most loud, and no man is considered as high as himself. A great talker and one quick to laugh at others' faults, shows a weak, mean, ignorant and degraded heart.—PENTE.

A SWELLING BLESSING.—A fellow at school, who was always accustomed to begin his epistles after one certain mode, namely, by mentioning his own health, and wishing the same blessing to those to whom he was writing, thus began a letter to his mother:—

“Dear Marm:—I take my pen in hand to inform you that I am down-sick with the mumps, and hope these few lines will find you enjoying the same great blessing.”

TO PRESERVE VINES FROM BUGS.—Glauber Salts, Sulphate of Soda, an ounce, dissolved in about one quart of water and sprinkled on the plants or vines, is recommended as a preventive against insects.

EFFECT ON THE AIR ON FIRING CANNON.—Mr. Robertson, the aeronaut, in his last ascension from Castle Garden, states that he was very much annoyed by the firing of cannon, perhaps at the Navy Yard.—Every discharge made his balloon shake like an aspen; and at times, he was not without apprehension of danger from the circumstance. The increase of the distance from the earth, did not diminish the effect of the concussion.

PEACHES.—The New York Post says, there is probably no part of the country where Peaches are cultivated to the same extent as at Shrewsbury, in New Jersey, near Sandy Hook and Long Branch. Shrewsbury has got to be as famous for good peaches, as Newark formerly was for cider. The farmers have orchards of from 2,000 to 10,000 peach trees. Mr. Jones of Shrewsbury, carries this business to the greatest extent. He has now upwards of 30,000 peach trees, on three farms. Last spring, when his trees were in full blossom, he expected to bring to market 20,000 baskets of peaches, but the frost of 14th May destroyed nearly all the fruit, and he now does not expect to get over 4000 baskets from the same trees.

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BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every MONDAY.

	PER.	FROM	TO
BRANDY, Apple,.....	gallon.	\$0 27	\$—
Peach,.....	"	"	"
BEANS, white field,.....	bushel.	—	—
BEEF, on the hoof,.....	100lbs.	5 00	5 25
CORN, yellow,.....	bushel.	65	66
White,.....	"	66	68
COTTON, Virginia,.....	pound.	—	—
North Carolina,.....	"	11	13
Upland,.....	"	14	15
FEATHERS,.....	pound.	—	—
FLAXSEED,.....	bushel.	1 00	1 25
FLOUR—Best white wheat family,.....	barrel.	6 50	7 00
Do. do. baker's,.....	"	6 00	6 50
Do. do. Superfine,.....	"	5 00	5 25
Super Howard street,.....	"	5 12	5 31
" wagon price,.....	"	5 00	5 25
City Mills, extra,.....	"	5 25	5 37
Do.	"	5 00	5 25
Susquehanna,.....	"	5 25	—
Rye,.....	"	3 37	—
GRASS SEEDS, red Clover,.....	bushel.	4 50	5 00
Timothy (herds of the north).....	"	3 00	—
Orchard,.....	"	3 00	—
Tall meadow Oat,.....	"	2 50	—
Herds, or red top,.....	"	1 25	—
HAY, in bulk,.....	ton.	—	13 00
Pressed,.....	100 lbs	—	90
HEMP, country, dew rotted,.....	pound.	6	7
" water rotted,.....	"	7	8
LIME,.....	bushel.	30	35
MUSTARD SEED, Foreign,.....	"	4 50	5 00
Domestic,.....	"	5 00	—
OATS,.....	"	29	30
OIL, linseed,.....	gallon.	—	90
Castor.....	"	1 70	1 80
PEAS, red eye,.....	bushel.	—	—
Black eye,.....	"	—	—
Lady,.....	"	—	—
PLASTER PARIS, in the stone,.....	ton.	2 75	—
Ground,.....	barrel.	1 37	—
PALMA CHRISTA BEAN,.....	bushel.	2 00	—
RAGE,.....	pound.	3	4
RYE,.....	bushel.	62	—
TOBACCO, crop, common,.....	100 lbs	3 50	5 00
" brown and red,.....	"	4 50	6 00
" fine red,.....	"	6 00	8 00
" wrappry, suitable for segars,.....	"	6 00	12 00
" yellow and red,.....	"	8 00	12 00
" yellow,.....	"	13 00	17 00
" fine yellow,.....	"	15 00	22 00
Seconds, as in quality,.....	"	4 00	5 00
" ground leaf,.....	"	5 00	9 00
Virginia,.....	"	4 00	—
Rappahannock,.....	"	3 00	4 00
Kentucky,.....	"	4 00	8 00
WHEAT, white,.....	bushel.	1 06	1 12
Red,.....	"	85	1 65
WHISKY, 1st pf. in bbls,.....	gallon.	28	29
" in hhds,.....	"	26	—
" wagon price,.....	"	—	—
WAGON FREIGHTS, to Pittsburgh,.....	100 lbs	1 75	—
To Wheeling,.....	"	1 50	—
WOOL, Prime & Saxon Fleeces,.....	pound.	50 to 60	24 to 26
Full Merino,.....	"	40	50 22 24
Three fourths Merino,.....	"	35	42 22 24
One half do,.....	"	30	35 21 22
Common & one fourth Meri,.....	"	28	30 18 20
Pulled,.....	"	28	31 18 20

WOOL.

LYMAN REED & CO. Commission Merchants, No. 6 S. Charles street, Baltimore, Md.—devote particular attention to the sale of WOOL. All consignments made them will receive their particular attention, and liberal advances will be made when required. May 9.

SUBSCRIBERS can have their volumes of the AMERICAN FARMER neatly half bound and lettered at this establishment, at 75 cents a volume. Most of the Nos. can also be had at 10 cents each, to complete files.

BALTIMORE PROVISION MARKET.

	PER.	FROM	TO
APPLES,.....	bushel.	\$0 45	\$0 50
BACON, ham,.....	pound.	11	—
Shoulders,.....	"	—	9
Middlings,.....	"	—	10
BUTTER, printed, in lbs. & half lbs.	"	31	—
Roll,.....	"	12	20
CIDER,.....	barrel.	—	—
CALVES, three to six weeks old,.....	each.	4 00	7 00
COWS, new milch,.....	"	15 00	27 00
Dry,.....	"	9 00	12 00
CORN MEAL, for family use,.....	100lbs.	1 62	1 75
CHOP RYE,.....	"	1 50	1 56
EGGS,.....	dozen.	9	—
FISH, Shad, trimmed,.....	barrel.	6 37	—
" salted,.....	"	4 00	4 25
HERRINGS, salted, No. 1 & 2,.....	"	4 00	—
MACKEREL, No. 1, 2 & 3,.....	cwt.	2 25	2 50
Cod, salted,.....	each.	1 25	2 00
LAMBS, alive,.....	quart'r	31	50
Slaughtered,.....	pound.	8	—
LARD,.....	bushel.	—	73
ONIONS,.....	dozen.	—	—
POULTRY, Fowls,.....	"	2 50	3 00
Chickens,.....	"	—	2 50
Ducks,.....	"	—	80
POTATOES, Irish,.....	bushel.	—	—
Sweet,.....	peck.	31	—
VEAL, fore quarters,.....	pound.	7	—
Hind do.	"	8	—

ADVERTISEMENTS.

A RARE CHANCE.

I HAVE the selling of an extensive list of Durham Short-horn Cattle, Bakewell Sheep, 2 thorough bred Fillies, and a valuable Boar, at prices lower than of any similar stock I have ever known offered in this country. I shall next week give a list comprising a minute description of each animal and its price. This stock will be for private sale until the next October races, over the Central Course, when all that may remain unsold will be offered at public auction. I. I. HITCHCOCK, Sept. 9. American Farmer Establishment.

FARMERS are informed that ALVIN ARMSTRONG, the Patentee of LANE'S ENDLESS CHAIN HORSE POWER THRESHING MACHINE, is now in Baltimore, and will attend to selling this valuable Machine, either in single Machine, or by districts. Enquire at the American Farmer Office, No. 16 Calvert-street. September 9.

SOUTH AMERICAN JACK AND JENNY FOR SALE.

ONE pair of young and in fine condition, lately imported at New York from Colombia, S. A. Apply at No. 5 Spear's wharf. sep 9

TALLAVERA WHITE WHEAT.

500 BUSHELS of this seed, grown, and particularly prepared, by Col. Anthony Kimmel, Frederick County, Maryland, a sample of which may be seen at my store. For character refer to the American Farmer, (vol. 15, page 161.) Any quantity of which can be obtained about the first of September, by applying personally, or by letter, post paid, to

R. D. BURNS,
9 Bowly's wharf.
Sep. 2.

Price \$1.80 per 60 pounds.

A MALE FERRET,

IN fine health and condition, is for sale at this Establishment. Price \$5. I. I. HITCHCOCK.

TWO VALUABLE SLUTS

ARE offered for sale, each about one year old. The first is a Pointer of the very best blood; color brown with some white. She may easily be broke this fall.

The other is out of one of the beautiful greyhound Sluts sent last year from Holland to the President of the U. S. by a fine pointer sent out with the greyhounds. The slut offered is a most beautiful black animal, very active, and appears to have the nose of the pointer with the speed of the greyhound. Price of each \$10. Apply to aug. 26 I. I. HITCHCOCK.

A MARE IN EXCHANGE FOR CATTLE.

A GENTLEMAN of Virginia is desirous of exchanging a valuable blooded brood Mare for thorough bred Durham short horn Cattle—for sheep of the best blood, or for a good Jackass. Should any gentlemen be disposed to make such a barter, he shall receive further information on application to I. I. HITCHCOCK, aug. 12 Amer. Farm. Estab.

MORUS MULTICAULIS.

THE subscriber has on hand a few hundred of this celebrated Tree, unrivalled in the quality of its leaves as food for the silk worm, for which he is ready to receive orders (accompanied by the cash) with particular directions for the delivery of the trees on or after the first of Nov. next. Price 50 cents each, \$5 per dozen, or \$40 per hundred.

The success and ease with which this tree is propagated, the extraordinary quickness of its growth, the superiority of its leaves over all others for the silk culture, and its uncommon luxuriance and beauty, altogether recommend it to the favorable notice of every farmer as a most valuable acquisition. I. I. HITCHCOCK, aug. 26. Amer. Farm. Establishment.

SEED WHEAT, RYE, &c.

THE subscriber offers his services for the procurement of Seed Wheat, Rye, &c. for those who shall provide funds in Baltimore for that purpose. He does not keep those articles on hand, and therefore can send them to those only who furnish him with the means in advance. For all such, however, he will use his best judgment to procure such grain as shall be ordered, charging a small commission for his agency. I. I. HITCHCOCK, Amer. Farm. Estab.

Note—I. I. H. has made arrangements for procuring for cash, Seed Grain of the very first quality, from some of the best farms in Maryland. aug. 12

TURNIP SPINACH & CABBAGE SEED.

A FULL supply of these seeds of several of the best varieties for summer and fall sowing, now on hand and for sale by I. I. HITCHCOCK, July 1 Amer. Farm. Estab.

SALE OF VALUABLE CATTLE.

THE subscriber intending to break up his Dairy Establishment, will offer at public sale on THURSDAY, the 12th of September next, at his residence near Brookville, Montgomery county, Md. his entire stock of COWS, amounting to 30 head. They are all of the improved Durham Short-Horned, crossed with the stock of the Oakes' Bull, which was raised by Mr. Oakes of Massachusetts, and got by the imported bull Coelebs, and was exhibited and took the premium at the Cattle Show near Baltimore, which was held at the house of the subscriber's brother, Wm. Frame, from whom he procured the young Oakes Bull. The cows are all in fine condition, and worthy the attention of improvers' stock.

Terms made known and attd. on given on the day of sale. DAVID FRAME, aug. 26

TERMS OF THIS PAPER.

1. Price five dollars per annum, payable in advance. When this is done, 50 cents worth of any kind of seeds on hand will be delivered or sent to the order of the subscriber with his receipt.

2. The manner of payment which is preferable to any other for distant subscribers, is by check or draft on some responsible party here, or else by remittance of a current bank note; and to obviate all objection to mail transmission, the conductor assumes the risk.

3. Subscriptions are always charged by THE YEAR, and never for a shorter term. When once sent to a subscriber the paper will not be discontinued (except at the discretion of the publisher) without a special order, on receipt of which, a discontinuance will be entered, to take effect at the END of the current year of subscription.

4. Subscribers may receive the work either by mail in weekly numbers, or in monthly or quarterly portions; or else in a volume (ending in May annually), handsomely pressed, half bound and lettered (to match with the American Farmer) by such conveyance as they may direct; but the \$5 must in all these cases be paid in advance.

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